

# **THE EFFECTIVENESS OF THE ROAD SAFETY PROGRAM AMONG THE ROAD USERS IN MALAYSIA**

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## **ABSTRACT**

The research is aims to reduce the road accidents that always happen in Malaysia. To address this problem Malaysian Government established the Road Safety Department under the Ministry of Transport in 2004 to coordinate, monitor and implement road safety program. Besides that, in this research a National Road Safety Plan was formulated the road safety program such as behavioral modification of road users, road engineering and vehicle safety to prevent road accidents. In addition, in this research also discuss about how the government reinforces the law and regulation on Road Traffic Act to increase the safety on road. The methodology, of the research is using the secondary data to analyze and review of the previous literature to find the way enhance the road safety program. In conclusion, the effectiveness of road safety program improvement is based on the action taken by government, other stakeholders, road developers and road planning personnel.

## **Keywords**

Road accidents, Road safety, Government planning, Road safety department, Road users

## **1.0 INTRODUCTION**

Road safety program is aims to reduce the harm such as deaths, injury, and property damage resulting from road accidents. Road accidents are a major public health problem in Malaysia. The problem is because the victims are overwhelmingly young and health prior to their crashes.

In general, the cause of accident is from these three basic factors which are road user errors, road environment faults and vehicle defects. It can often say that the road user is primarily responsible for accidents. According to Mohamad Ghazali Masuri, Khairil Anuar Md Isa & Mohd Pozi Mohd Tahir (2011), "the rapid motorization, the lack of road maintenance, lack of police enforcement, rapid population growth and poor road conditions are some examples of factors that can cause an increase in road accidents in Malaysia".

The objective of this research is to improve road safety and thus contribute to sustainable mobility. There are three objectives on this research: (1) to identify the key measures to reduce the number of deaths due to road accidents ; (2) To raise awareness about road safety among policy makers, road users, and the public to facilitate the formulation and implementation of appropriate strategies. (3) The adequate financial resources for road safety programs must be mobilized and managed.

## **2.0 LITERATURE REVIEW**

Road safety is a significant emerging occupational issue in many countries worldwide, commonly referred to as fleet, work-related or occupational road safety. In Malaysia, road accidents are considered as a major public health problem because the victims who involve in road accidents usually are young drivers. Therefore, the aims of the road safety program are to reduce the road accidents, injuries and fatalities. Responsibility for road safety originally fell to the Transport Sector and a collection of traffic safety agency is usually located within government departments. However, road safety has increasingly become the environmental Public Health Sector such as sociology, behavioral education, economics, and engineering. Road injury prevention is now the collective work of a various sectors of the

collective goal is to prevent and reduce the severity of injuries in road accidents. These agencies include government and legislative bodies, users/citizens, industry, police, non-governmental organizations and special interest groups, professionals, and the media (Figure 2.0).

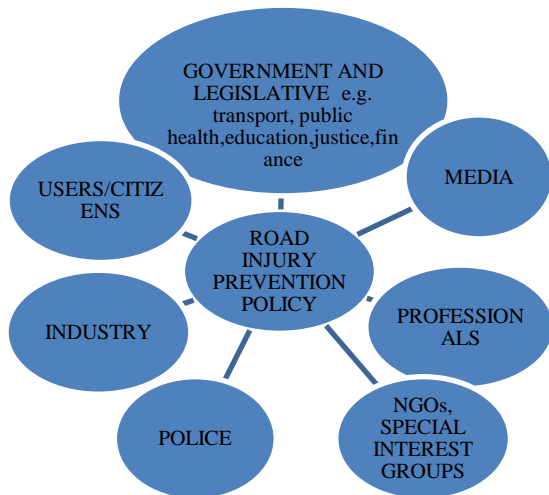


Figure 2.0: Sectors Involved in Road Safety

SOURCE: Journal of World Health Organization (2005), WHO, Risk Factors for Road Traffic Injuries.

In this research will focused on three parts; (1) road accidents in Malaysia; (2) government policy for road safety; (3) road user behavior.

## 2.1 Road Accidents in Malaysia

“Road accidents in Malaysia has increased at the average rate of 9.7% per annum during the past three decades”, (Mohamad Nizam Mustafa, 2005). According to Mohamad Nizam Mustafa (2005), “compared with the earlier days, the total number of road accidents has increased from 24,581 cases in 1974 to 328,264 cases in 2005, reaching more than 135% increase of accident cases over 30 years”. “Every year, more than 1 million people are estimated died in road accidents and the road users who are particularly vulnerable, representing the majority of deaths worldwide” (Mohamad Ghazali Masuri, Khairil Anuar Md Isa & Mohd Pozi Mohd Tahir , 2011; Cited by Bhattacharya et al., 2006).

Motorcyclists are at the highest risk in road accidents, especially for a head injury. In Malaysia, a national statistic on road accidents by the Royal Malaysian Police indicated that a very important part of fatal accidents were caused by motorcyclists. According to Mohamad Ghazali Masuri, Khairil Anuar Md Isa & Mohd Pozi Mohd Tahir (2011), “ in 2002, the numbers of motorcycle accident

deaths are 3,034 cases and then increased to 3,166 in 2003, reduced to 3,101 in 2004, and subsequently increased to 3,181 in 2005 and 3,243 in 2006”.

On the other hand, the lower number of accidents caused by motorcycle accidents in developed countries may be due to the perception of motorcycles being considered more as leisure activity. However in Malaysia, a motorcycle is considered as the most common and necessary mode of transport.

## 2.2 Government Policy for Road Safety

In this government policy will separate three parts to discussed (1) engineering and planning; (2) road safety education; (3) enforcement.

### 2.2.1 Engineering and Planning

In order to increase the safety of the road concerned, the engineering and planning approaches are required to utilize such as accident prevention, accident reduction and vehicle safety. For accident prevention approach, Public Works Department (PWD) is trying to prevent accidents from happening.

The second approach is accident reduction. The program under accidents reduction can be include improvement of hazardous location, providing exclusive motorcycle lane, improvement of dangerous curve and install more street light in order to reduce road accidents. The last approaches for engineering and planning is vehicle safety. The improvements in vehicle design, road user’s protection and maintenance of vehicle can made a significant contribution to the reduction of accidents in Malaysia.

### 2.2.2 Road Safety Education

Road safety education is aims to reduce the harm such as deaths, injuries, and property damage resulting from road accidents. “Education is the foundation, the platform and catalyst that support all programs to bring the desired change in the road safety behavior, skills and attitude”, (Pietro, G.D., 2009). The main objective for road safety education is to make drivers and road users more understanding the basic rule on road. The road safety education is a lifelong process, but it must start with the young people in schools, tailoring its message to the audience to teach safe traffic habits from primary school to secondary school, so that safety is rooted as part of the culture and practices of our children.

### 2.2.3 Enforcement

Government implement traffic law enforcement is to ensure the safety of all the vehicles and persons who used the roads. According to Noradrenalina Isah, Sanizah Saleh, Maslina Musa, Kee, & Anis Syakira Jailani (2012), “traffic enforcement is seeks to generate a general deterrence effect on motorists”. “The entire goal of traffic enforcement is to increase compliance by motorists to traffic laws, resulting in reduced vehicle accidents”(Noradrenalina Isah *et.al*, 2012; Cited by National Highway Traffic Safety Administration 2005).

Enforcement is especially effective in reducing speeding (Noradrenalina Isah *et.al*, 2012; Cited by Glendon 2003). To reduce the road accidents the government should strict the enforcement of speed limit on road. For example, 90% of road accidents can be reduce if the government strict the enforcement of speed limit. The use of helmets and seatbelts are mandatory in Malaysian Law while the uses for child seatbelt are currently not a mandatory. The usage of helmet for every motorcycle users is a mandatory and provided as a regulation in Road Traffic Act 1987. “Malaysia has a primary enforcement law, the Traffic Act of 1958, with a fine of up to RM100 for each unbelted rider”, (Hauswald, 1997).

### 2.3 Road User’s Behavior

Road user behavior is the main challenges to meet in achieving road safety goal. According to Noradrenalina Isah *et.al*, (2012), “Enforcement is the key components which can change the road user’s behavior”. The basic principle of human behavior can be modified by making people afraid of the consequences of their illegal actions (Noradrenalina Isah *et.al*, 2012).The drivers usually involve in more speeding, drink-driving, and reckless driving, as well as lower use of seat belts. According to Fernandes, Job & Hatfield (2007), “The young people with lack experiences were always involved in risky driving without fully understanding the consequences of their actions”. The lack of driving experiences is one of the key factors that cause young drivers contribute in a road accident. So, the perception of being arrested plays an important role in speed options which can reduces the driver’s tendency to speed.

## 3.0 RESEARCH METHODOLOGY

In this research, the data was collected mainly from secondary data which contribute by journal, internet, report and Malaysian Institute of Road Safety Research (MIROS) resources. In this research will review of previous literature about the problem

occur on road why the road accidents are increase every year and find the solution such as enhance the road safety program to reduce this problem. Besides, through the university online databases, multiple databases such as Emerald Management Plus, JStor, Elsevier Science Direct, and others can be linked to enable the access of data. A conceptual framework for the independent variable and dependent variable has been developed.

## 4.0 FINDINGS AND DISCUSSION

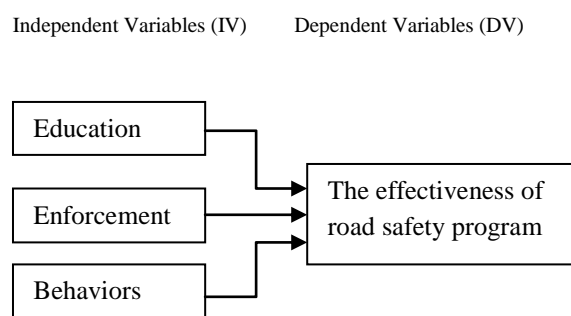


Figure 4.1: Theoretical framework

Above is a chart regarding the theoretical framework about the reasons how to enhance the road safety program. Our dependent variable (DV) is the effectiveness of road safety program and our independent variables (IV) are education, enforcement, and behaviors. From this theoretical framework, we want to find the way to increase road safety among road users when using the road. First independent variables are discussed about education. Road safety education is needed to provide for road users such as safety knowledge and skills to help them identify and inherent the risks when on road. The second independent variables are enforcement. The government should reinforce the traffic enforcement in order to increase the road safety for road users. For example, increased speed enforcement to reduce the average driving speed and the number of speeding offenses should be enforced. In addition, the police officer should conduct random checks on road to catch the road users who are breaking the traffic rules. The last independent variables are behaviors. The road user’s behavior must change if not the road safety program cannot become effective. The driver must aware of their attitude when driving to avoid road accidents. In order to make the road safety program effective, the Ministry of Transport (MOT) must improve the standard of training courses for drivers to reducing the road crashes and injury.

Table 4.1: Road Accident Statistics (January to July 2012)

Month	Number of Road Accidents	Number of Road Death	Number of Motorcyclists Death
January	37,171	587	323
February	35,293	504	318
March	37,948	553	331
April	37,370	520	325
May	40,443	615	353
June	36,929	587	347
July	40,467	619	379
Total	265,621	3,985	2,376

Source: Royal Malaysia Police 2012

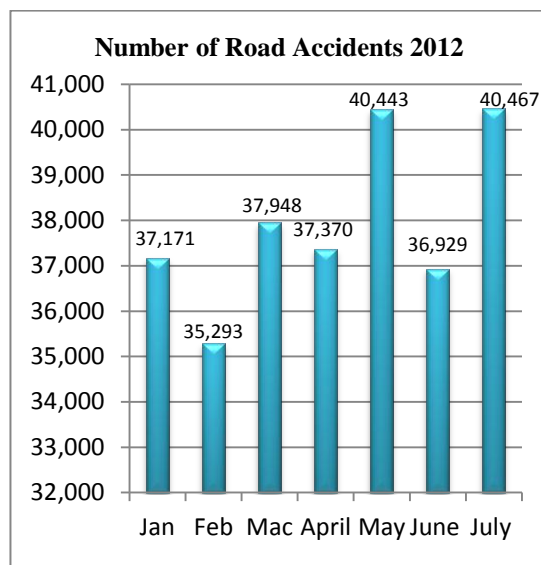


Figure 4.2: Number of Road Accidents in Malaysia from January to July 2012

Figure 4.2 shows the number of road accidents in Malaysia from January to July 2012. The number of road accidents in January is 37,171 cases decreased to 35,293 cases in February, and increased to 37,948 cases in March. As shown in figure 4.1 the number of road accidents are keeping unstable from January to July 2012, in May the number of accidents are 40,443 cases reduce to 36,929 cases in June and then gradually increased to 40,467 cases in July 2012. The increased of the number of road accidents may be due to the rapid growth in vehicle occupancy over time. Growth in urbanization and in the number of vehicles in Malaysia has led to the increase in traffic accidents on the road networks.

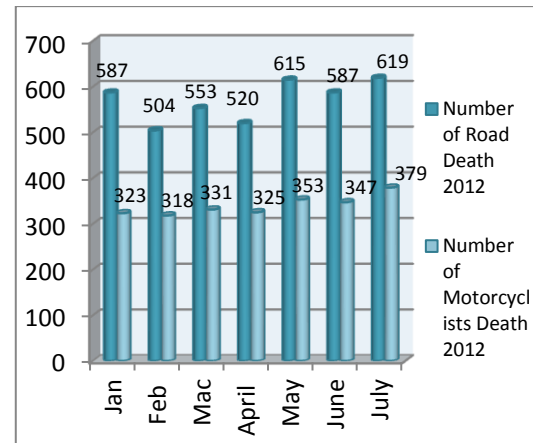


Figure 4.3: Number of Road Death & Motorcyclists Death in Malaysia from January to July 2012

The figure 4.3 above shows the number of Road Accidents Death and Motorcyclists Accidents Death in Malaysia from January to July 2012. By further comparing the road death over the last seven months, it shows that the number of road death is unstable, in January the road death is 587 cases decreased to 504 cases in February and then increased again to 553 cases in March. Therefore, in April the number of road death is slightly decreased to 520 cases however in July the number road death is increased. Besides that, as shown in figure 4.3 it can see that the number of motorcyclists death in May is 353 cases decreased to 347 cases in June and increased to 379 cases in July 2012. It can see that the majority users involved in road accidents is motorcyclist. Motorcyclists involve in accidents are consists of 50% in the number road death. It can conclude that, as seen in this figure, motorcyclists are considering as the highest risk vehicle involve in road accidents.

## CONCLUSION

From this research, we can conclude that the road accidents are the major problem that causes the road accidents, so the effective road safety program must be enhance. Therefore, government and other stakeholders, road developers and road planning personnel should take the action to overcome this problem.

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